

DERWENT-ACC-NO: 1989-301541

DERWENT-WEEK: 198942

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TITLE: Prod'n. of synthetic bone by growing human bone  
cells -  
outside body on calcium phosphate or bio-  
polymer, for  
re-implanting in patient

INVENTOR: HEIDE, H; JONES, D

PATENT-ASSIGNEE: BATTELLE-INST EV[BATT]

PRIORITY-DATA: 1988DE-3810803 (March 30, 1988)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES MAIN-IPC		
DE 3810803 A	October 12, 1989	N/A
005 N/A		
DE 3810803 C	June 13, 1990	N/A
000 N/A		

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
DE 3810803A	N/A	1988DE-3810803
March 30, 1988		

INT-CL (IPC): A61L027/00, C12N005/00

ABSTRACTED-PUB-NO: DE 3810803A

BASIC-ABSTRACT:

A synthetic bone material with properties resembling the body, is made by culturing human bone cells (praeos-eoblasts and osteoblasts) outside the body, on Ca phosphate substances similar to natural bone mineral and/or on biopolymer substrates.

The Ca phosphate approximates as closely as possible to the ratio  
CaO:P2O5 =

3:1, and the biopolymer is collagen. The bone cells may be autological, or may be taken from a different, but immunologically suitable, patient. The matrix may be porous, esp. in monolithic form adapted to the bone defect to be treated, or may be granular. The nutrient soln. is allowed to flow over the cell culture deposited on the matrix.

USE/ADVANTAGE - The prod. is a composite material which can be re-implanted into the patient from whom the bone cells were taken. Even large bone deficiencies can be bridged.

ABSTRACTED-PUB-NO: DE 3810803C

#### EQUIVALENT-ABSTRACTS:

A synthetic bone material with properties resembling the body, is made by culturing human bone cells (praeos-eoblasts and osteoblasts) outside the body, on Ca phosphate substances similar to natural bone mineral and/or on biopolymer substrates.

The Ca phosphate approximates as closely as possible to the ratio  $\text{CaO:P2O5} = 3:1$ , and the biopolymer is collagen. The bone cells may be autological, or may be taken from a different, but immunologically suitable, patient. The matrix may be porous, esp. in monolithic form adapted to the bone defect to be treated, or may be granular. The nutrient soln. is allowed to flow over the cell culture deposited on the matrix.

USE/ADVANTAGE - The prod. is a composite material which can be re-implanted into the patient from whom the bone cells were taken. Even large bone deficiencies can be bridged. (5pp)

TITLE-TERMS: PRODUCE SYNTHETIC BONE GROW HUMAN BONE CELL BODY CALCIUM PHOSPHATE

BIO POLYMER IMPLANT PATIENT

DERWENT-CLASS: B04 D16 D22 P34

CPI-CODES: B04-B04A3; B04-B04A6; B05-A01B; B05-B02A3; B11-C04A; B12-J08;  
D09-C01D;

CHEMICAL-CODES:

Chemical Indexing M1 \*02\*

Fragmentation Code

M423 M431 M782 M903 P714 Q233 V600 V642

Registry Numbers

1704X 1724X 1711X 1714X 89290

Chemical Indexing M1 \*03\*

Fragmentation Code

M423 M431 M782 M903 P714 Q233 V752

Registry Numbers

1704X 1724X 1711X 1714X 89290

Chemical Indexing M2 \*01\*

Fragmentation Code

A220 A940 B115 B701 B713 B720 B815 B831 C101 C108

C802 C803 C804 C805 C807 M411 M431 M782 M903 M904

M910 P714 Q233

Specific Compounds

01748M 01755M 01757M

Registry Numbers

1704X 1724X 1711X 1714X 89290

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1748U; 1755U ; 1757U

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1989-133340

Non-CPI Secondary Accession Numbers: N1989-229901